

Claims:

1. A method for disintegrating and granulating slags, in which the molten slag is ejected into a granulation chamber by the aid of a propulsion jet, characterized in that gases, in particular air or oxygen, are introduced into the molten slag to form a foamed slag, that the temperature of the foamed slag is raised to a temperature of above 1350°C, in particular 1420° to 1680°C, by the aid of fuels such as, e.g., coal introduced into the foamed slag, and that the foamed slag is ejected into a granulation chamber.

2. A method according to claim 1, characterized in that the foamed slag is ejected by vapor and impacted with high-pressure water in countercurrent.

3. A method according to claim 1 or 2, characterized in that vapor having a temperature of between 200° and 1200°C and a pressure of between 5 and 15 bars is used to eject the foamed slag.

4. A method according to claim 1, 2 or 3, characterized in that high-pressure water having a pressure of between 50 and 300 bars is directed against the foamed slag vapor jet.

5. A method according to any one of claims 1 to 4, characterized in that the slag basicity in the foamed slag is adjusted to values of from 0.8 to 1.3 by the addition of CaO, Al₂O₃ and/or SiO₂.

6. A method according to any one of claims 1 to 5, characterized in that the volume weight of the foamed slag is adjusted to below 0.35 kg/dm³, in particular approximately 0.28 kg/dm³.

7. A method according to any one of claims 1 to 6, characterized in that the foamed slag is maintained under a pressure of between 3 and 7 bars.

8. A method according to any one of claims 1 to 7, characterized in that exhaust gases from the foamed slag are fed to a gas turbine.

5 9. A device for carrying out the method according to any one of claims 1 to 8, characterized by a tundish (1) into which a gas lance (20) opens and/or in whose bottom tuyeres (2) are arranged, that a foamed slag overflow (5) and an outlet opening (6) for slag are provided, that the tundish (1) 10 carries a pressure-proof lid (8) to which a sluice (9) is connected to charge solids and coal above the slag bath, and that a lance (7) opens into the slag outlet opening (6) to feed a carrier gas aimed to eject the foamed slag (4).

15 10. A device according to claim 9, characterized in that a grinding and evaporation chamber is connected to the slag outlet opening (6), that a pressure water duct (16) opens on the chamber side located opposite the slag outlet (6), and that a screening means (18) is connected to the grinding and 20 evaporation chamber to discharge the disintegrated and granulated material.

11. A device according to claim 9 or 10, characterized in that an exhaust gas duct (10) is connected to the tundish (1), 25 which exhaust gas duct is conducted via a gas turbine and/or a heat exchanger.

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